

Metal Coating, Engraving (Except Jewelry and Silverware), and Allied Services to Manufacturers: 2002

Issued September 2004

EC02-311-332812

2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
332812, Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers	2002 ..	2 243	2 480	55 920	1 929 730	43 445	83 799	1 298 276	4 923 233	4 595 496	9 525 748	336 160
	2001 ..	N	N	57 266	1 827 147	45 087	91 323	1 229 168	4 576 907	4 434 965	9 040 164	255 237
	2000 ..	N	N	60 625	1 888 437	48 230	96 366	1 268 976	4 699 371	4 715 995	9 391 855	293 634
	1999 ..	N	N	59 361	1 809 333	47 518	96 591	1 224 956	4 557 498	4 782 629	9 263 889	301 286
	1998 ..	N	N	60 476	1 764 582	47 995	94 453	1 180 639	4 594 054	4 711 871	9 295 323	328 193
	1997 ..	1 978	2 154	55 954	1 634 627	44 418	89 740	1 093 781	4 154 477	4 354 598	8 515 488	313 368

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332812, Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers												
United States	1	2 480	776	55 920	1 929 730	43 445	83 799	1 298 276	4 923 233	4 595 496	9 525 748	336 160
Alabama	3	27	11	1 118	35 964	912	1 827	25 634	78 769	49 155	127 866	6 586
Arizona	3	48	10	872	23 729	728	1 438	17 253	51 431	22 062	73 186	4 558
California	1	351	104	5 587	191 667	4 323	8 261	122 551	431 293	362 150	800 425	40 099
Colorado	1	33	4	273	9 004	221	446	6 294	25 086	37 863	63 224	1 542
Connecticut	1	50	18	1 203	47 472	903	1 909	30 615	107 658	58 683	165 893	6 703
Florida	2	68	13	807	26 533	655	1 127	19 006	62 755	23 814	87 083	3 500
Georgia	1	29	10	674	25 575	535	1 116	17 800	40 663	71 848	115 834	6 872
Illinois	—	143	56	3 689	135 920	2 911	5 779	95 905	329 843	292 183	619 994	24 311
Indiana	—	103	40	3 050	117 389	2 427	4 824	81 744	719 626	243 037	969 872	24 045
Iowa	—	18	7	545	14 218	441	788	10 288	38 175	15 598	53 046	2 900
Louisiana	—	25	12	1 495	50 365	1 250	2 193	37 195	97 946	69 397	168 113	13 088
Massachusetts	1	79	27	1 761	64 640	1 372	2 523	42 237	131 485	44 383	177 737	10 060
Michigan	—	192	78	5 555	182 654	4 378	8 111	124 145	435 075	204 863	639 738	24 845
Minnesota	—	81	24	1 570	47 498	1 200	1 954	30 910	101 344	37 171	138 396	8 293
Mississippi	—	14	4	474	20 195	402	818	16 022	50 019	66 461	120 108	1 660
New Jersey	1	61	16	1 017	30 841	722	1 527	20 217	64 730	22 630	86 076	5 476
New York	1	97	24	1 794	58 870	1 376	2 612	37 314	119 043	70 218	192 756	9 005
North Carolina	2	46	11	670	22 437	521	906	15 206	49 380	15 686	65 269	3 632
Ohio	—	170	59	5 332	199 160	4 018	7 963	130 374	544 263	1 035 879	1 601 436	29 108
Oklahoma	6	33	11	713	25 333	586	1 159	18 029	55 758	36 515	92 109	8 172
Oregon	3	31	8	398	13 279	313	641	9 376	30 173	15 139	45 518	2 569
Pennsylvania	—	104	31	2 099	80 482	1 613	3 198	56 850	250 900	639 731	882 919	16 967
Texas	2	176	53	3 494	112 535	2 802	5 464	77 184	230 693	153 064	391 810	17 698
Virginia	1	23	5	260	8 124	211	424	5 848	15 346	8 345	23 794	937
Washington	—	48	14	1 210	50 555	767	1 634	26 778	126 206	75 529	192 031	7 358
Wisconsin	2	93	32	3 277	97 468	2 574	4 677	67 060	176 912	91 046	267 847	12 774

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
332812, Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers	
Companies ¹	2 243
All establishments ²	2 480
Establishments with 1 to 19 employees	1 704
Establishments with 20 to 99 employees	683
Establishments with 100 employees or more	93
All employees ³	55 920
Total compensation	2 340 906
Annual payroll	1 929 730
Total fringe benefits	411 176
Production workers, average for year	43 445
Production workers on March 12	43 109
Production workers on May 12	43 607
Production workers on August 12	43 713
Production workers on November 12	43 196
Production worker hours	83 799
Production worker wages	1 298 276
Total cost of materials	4 595 496
Materials, parts, containers, packaging, etc., used	4 064 175
Resales	52 541
Purchased fuels	158 338
Purchased electricity	141 023
Contract work	179 419
Quantity of electricity purchased for heat and power	2 651 818
Quantity of electricity generated less sold for heat and power	230
Total value of shipments	9 525 748
Primary products value of shipments	8 851 537
Secondary products value of shipments	462 817
Total miscellaneous receipts	211 394
Value of resales	70 294
Contract receipts	92 014
Other miscellaneous receipts	49 086
Primary products specialization ratio	95
Value of primary products shipments made in all industries	9 247 321
Value of primary products shipments made in this industry	8 851 537
Value of primary products shipments made in other industries	395 784
Coverage ratio	96
Value added	4 923 233
Total inventories, beginning of year	857 184
Finished goods inventories	412 694
Work-in-process inventories	131 867
Materials and supplies inventories	312 623
Total inventories, end of year	856 649
Finished goods inventories	391 435
Work-in-process inventories	146 107
Materials and supplies inventories	319 107
Gross value of depreciable assets (acquisition costs) at beginning of year	5 263 455
Total capital expenditures (new and used)	336 160
Buildings and other structures (new and used)	44 428
Machinery and equipment (new and used)	291 732
Automobiles, trucks, etc., for highway use	17 569
Computers and peripheral data processing equipment	32 238
All other expenditures for machinery and equipment	241 925
Total retirements	303 291
Gross value of depreciable assets at end of year	5 296 324
Depreciation charges during year	334 062
Total rental payments	166 196
Buildings and other structures	111 499
Machinery and equipment	54 697
Total other expenses ⁴	531 655
Response coverage ratio ⁵	79
Repair and maintenance services of buildings and/or machinery ⁴	110 155
Communications services ⁴	14 753
Legal services ⁴	8 594
Accounting, auditing, and bookkeeping services ⁴	8 408
Advertising and promotional services ⁴	10 214
Expensed computer hardware and supplies and purchased computer services ⁴	10 650
Refuse removal (including hazardous waste) services ⁴	20 262
Management consulting and administrative services ⁴	24 495
Taxes and license fees ⁴	38 250
All other expenses ⁴	285 876

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332812, Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers											
All establishments	1	2 480	55 920	1 929 730	43 445	83 799	1 298 276	4 923 233	4 595 496	9 525 748	336 160
Establishments with —											
1 to 4 employees	9	880	g	D	D	D	D	D	D	D	D
5 to 9 employees	5	368	2 426	92 281	1 847	3 630	64 323	174 245	127 344	301 735	21 118
10 to 19 employees	2	456	6 365	211 198	4 798	8 311	138 787	416 963	219 510	635 253	37 479
20 to 49 employees	1	500	15 452	495 777	12 158	22 760	332 740	1 187 088	651 827	1 820 918	83 209
50 to 99 employees	—	183	13 104	458 821	10 323	20 797	305 851	1 129 187	1 021 490	2 146 429	82 190
100 to 249 employees	—	80	11 895	422 755	9 390	18 446	294 178	1 121 660	2 134 697	3 288 940	70 133
250 to 499 employees	—	12	4 368	166 786	3 183	6 526	109 093	775 306	348 637	1 121 938	26 502
500 to 999 employees	—	1	f	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	923	2 599	102 141	2 120	4 198	73 077	155 187	134 163	288 584	21 996

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers	2 480	55 920	1 929 730	43 445	83 799	1 298 276	4 923 233	4 595 496	9 525 748	336 160
3328120	Metal coating, engraving, and allied services	2 480	55 920	1 929 730	43 445	83 799	1 298 276	4 923 233	4 595 496	9 525 748	336 160

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers	2002.. N 1997.. N	X X	X X	9 247 321 8 214 631
3328120	Metal coating, engraving, and allied services	2002.. N 1997.. N	X X	X X	9 247 321 8 214 631
33281202	Metal galvanizing and other hot dip metal coating	2002.. N 1997.. N	X X	X X	2 808 634 2 106 368
3328120221	Metal galvanizing and other hot dip metal coating	2002.. 108 1997.. 108	X X	X X	2 808 634 2 106 368
33281203	Metal coil coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. N 1997.. N	X X	X X	1 542 427 1 465 856
3328120326	Metal coil coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. 49 1997.. 41	X X	X X	1 542 427 1 465 856
33281204	Metal liquid spray coating, including electrostatic coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. N 1997.. N	X X	X X	851 168 897 843
3328120431	Metal liquid spray coating, including electrostatic coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. 292 1997.. 426	X X	X X	851 168 897 843
33281205	Metal powder coating, including electrostatic and fluidized bed (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. N 1997.. N	X X	X X	907 473 1 027 662
3328120536	Metal powder coating, including electrostatic and fluidized bed (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. 391 1997.. 457	X X	X X	907 473 1 027 662
33281206	Flocking metals and metal products for the trade	2002.. N 1997.. N	X X	X X	240 417 N
3328120631	Flocking metals and metal products for the trade	2002.. 112 1997.. N	X X	X X	240 417 N
33281201	All other metal coating, including curtain coating and wash coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. N 1997.. N	X X	X X	1 490 631 1 396 854
3328120101	Electronic metal engraving, excluding metal nameplates	2002.. 31 1997.. 23	X X	X X	77 734 38 436
3328120106	Photo chemical metal etching, including machining (excluding metal nameplates)	2002.. 42 1997.. 58	X X	X X	166 349 234 664
3328120111	Etching and engraving metal nameplates	2002.. 68 1997.. 58	X X	X X	103 138 98 636
3328120113	Engraving and etching on nonprecious (except pewter) metal hollowware, flatware, and cutlery	2002.. 17 1997.. N	X X	X X	77 160 N
3328120116	Other engraving and etching, except jewelry and silverware	2002.. 52 1997.. 49	X X	X X	263 763 219 907
3328120146	Inorganic metal coatings, including porcelain	2002.. 59 1997.. 74	X X	X X	311 944 356 168
3328120141	All other metal coating, including curtain coating and wash coating (including organic coatings, enamels, lacquers, alkyds, plastics, etc.)	2002.. 115 1997.. 131	X X	X X	490 543 449 043
3328120Y	Metal coating, engraving, and allied services, nsk, total	2002.. N 1997.. N	X X	X X	1 406 571 1 320 048
3328120YWW	Metal coating, engraving, and allied services, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	1 141 518 1 199 503
3328120YWY	Metal coating, engraving, and allied services, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	265 053 120 545

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers		
00900001	Total materials	X	4 064 175
	1997..	X	3 922 493
33200005	Fabricated metal products, including forgings	X	312 431
	1997..	X	374 503
33100035	Castings, rough and semifinished	X	D
	1997..	X	19 943
33120001	Steel shapes and forms (excluding castings, forgings, and fabricated metal products)	X	1 640 371
	1997..	X	1 512 224
331000AJ	Nonferrous metal shapes and forms (excluding castings, forgings, and fabricated metal products)	X	64 483
	1997..	X	50 857
32521101	Plastics materials and resins	X	87 309
	1997..	X	78 941
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product	X	475 064
	1997..	X	N
32599801	Foundry chemicals, metal treating compounds, and plating compounds	X	350 324
	1997..	X	259 463
32500067	Other chemicals and allied products (excluding plastics materials and resins, paints, varnishes and allied products, foundry chemicals, metal treating compounds, and plating compounds)	X	62 471
	1997..	X	45 313
32791001	Grinding wheels and other abrasive products, excluding industrial diamonds	X	D
	1997..	X	2 901
00970099	All other materials and components, parts, containers, and supplies	X	419 836
	1997..	X	1 045 928
00971000	Materials, ingredients, containers, and supplies, nsk	X	619 939
	1997..	X	532 420

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.